

## Approach to angry patients and anger expression styles of emergency medical services professionals

Anger and anger expression styles of EMS workers

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### Abstract

**Aim:** The aim of this study is to determine the anger and anger expression styles of the emergency medical services (EMS) professionals, to determine whether they see themselves as adequate when working with angry patients or patient relatives, and contribute to the field.

**Materials and Methods:** The sample of the study consisted of 564 people working in Ankara EMS. Demographic Questionnaires and Anger and Anger Expression Style Scales (AAES) were used in the study. All data were analyzed using SPSS for Windows version 21.

**Results:** For the participants, the mean Anger score was 19.8 ( $\pm$  5.5), the mean Anger-out score was 16.8 ( $\pm$  5.6), the mean Anger-in score was 17.3 ( $\pm$  4.3), and the mean Anger Control score was 22.8 ( $\pm$  5.8). Those who felt inadequate to approach an angry patient were found to have higher continuous anger and anger-in scores, while their anger control scores were lower.

**Discussion:** In this study, the rate of encountering with angry patients of employees was found to be 96.6%. According to the findings of this study, employees having high levels of anger and less anger control levels are experiencing inability to interfere with angry individuals. Employees can ignore their anger by considering patients and their relatives as angry.

**Conclusions:** According to the findings, EMS workers need training on anger management and effective communication.

### Keywords

Emergency Medicine; Anger; Health Professionals

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## Introduction

The health Professionals in EMS are facing with several different cases. In the majority of the cases, there are individuals who are frightened, anxious, intense stressed and cannot cope with the situation which they have experienced [1-3]. When these individuals are insufficient to cope with the crisis and stress situation they faced, they can exhibit anxiety, anger expression and aggressive behaviors. EMS personnel may experience an inability to manage individuals and their families who have experienced physical and mental trauma under intense stresses [1-3]. Although it is known that individuals react differently to the stress they experience, the main outcomes of this chaos environment can often be anxiety, anger, feel guilt or indecision. These feelings also can be expressed by both service receivers and service providers [4]. EMS professionals may experience inadequate anger control and anger expression while serving individuals suffering pain and fear [5-7].

Anger is a basic feeling that people are experiencing [8]. Anger can also be defined as a negative emotional state accompanied by thoughts of physiological arousal and hostility towards a person or object, often seen as the cause of a negative event [9]. Spielberger (1983) [10] considers continuous anger as a concept that reflects how frequently anger situation was usually experienced by the individual, "anger-in" as the tendency to suppress thoughts and emotions that bring out anger; "anger-out" as the tendency tends to show aggressive behavior towards individuals or objects in the environment; "anger control" as the ability to reflect the control of anger expression.

The feeling of anger that cannot be expressed by appropriate means may often result in verbal or physical violence. In many studies, it has been revealed that emergency healthcare workers are frequently exposed to violence by the patients and their relatives [11,12]. Health workers facing violent behaviors were stated mostly having anger expression feelings. Consequently, as a result of this stressful environment, the stress of anger feeds the violence and the sense of anger again [11,12]. Failure to identify and respond appropriately to angry patients may become the source of many problems, particularly violence to health professionals. The number of studies on the expression styles and approaches to "anger", "anger-in", "anger-out" and "anger control" is limited and it is seen that these studies are mostly directed to the personnel working in emergency clinics, and there is no study for the employees working in EMSs. This study was conducted in order to contribute to the literature in this field due to insufficient number of studies.

The aim of this study was to determine the anger and anger expression styles of the health professionals in Ankara 112 EMS, to determine whether they are competent to work with angry patients or their relatives.

## Material and Methods

The population of this study was composed of health centers serving in Ankara 112 EMS stations. The sample was not determined in the study and it was aimed to reach the whole population. The total number of personnel working under the presidency of emergency healthcare services is 2361. Healthcare personnel number is 1757 (113 Doctors, 99 Nurses, Midwife, Health Officer, 1131 EMT (Emergency Medicine Technician), 414 Paramedic), and 604 of them are other

employees (Secretary, Housekeeper, driver, etc.).

The study was conducted between June 2014 and September 2014 with 564 people who agreed to participate in the study from 1536 employees actively working in the university. Nine hundred seventy-two employees were excluded from the study due to different reasons such as not accepting to participate in the study and 221 employee's absence due to leaves and reports.

In the study, the Socio-Demographic Questionnaire developed by the researchers as a result of the literature review and "Anger/Anger Expression Style Scale (AAES)" forms were used.

### Socio-Demographic Questionnaire

Socio-Demographic data form consists of 7 questions about gender, age, marital status, educational status, professional status, duration of professional experience and duration of their work in 112, the questions for determining the situations that employees faced as a necessity of their jobs were including; whether or not he/she individually faced with a patient showing aggressive behavior; whether he/she feels adequate when serving the individual with aggressive behavior.

Anger/Anger Expression Style Scale (AAES): It was developed by Spielberger [10] in 1983 and its validity and reliability were performed by Özer [13]. The scale consists of 4 sub-scales and 34 items including anger-in, anger-out, anger control, and continuous anger. While the first 10 items of the scale measure the level of continuous anger, 24 items determine individuals' anger styles (anger-in, anger-out and anger-control sub-dimensions). High scores on continuous anger subscale indicate high levels of anger, high scores on anger control subscale indicate individual can control the anger, high scores on the anger-out subscale indicate that anger is easily expressed, and high scores on anger-in subscale show that the anger was suppressed [14]. For this study, Cronbach's alpha coefficients were found to be 0.79 for 'continuous anger' dimension, 0.78 for 'anger-out expression' dimension, 0.62 for 'anger-in expression dimension' and 0.84 for 'anger control' dimension.

### Ethical aspect of the study

Ethical Board Permission for the study was obtained from the ethics committee of Yıldırım Beyazıt University in Ankara and in writing from the relevant institution whose name was specified in the ethics committee form (18/09/2018-41). Written informed consent was obtained from individuals who wanted to participate in the study.

### Statistical analysis of the research

In the statistical evaluations, socio-demographic characteristics of the patients were given as number, percentage distribution, mean, standard deviation values. The relationships between socio-demographic data, categorized open-ended questions and AAES scores were evaluated by SPSS 21 Statistical Package Program. Since the continuous variables used in the study did not show normal distribution according to the Shapiro-Wilk normality test, the post-hoc analysis of the significant variables using the Kruskal-Wallis and the Mann-Whitney U test was evaluated with the Bonferroni test in the evaluation of AAES scores with socio-demographic variables. The power analysis of the study was done with G power 3.1.9.2 Statistical Program and (n: 564), group 4,  $\alpha$ : 0.05, effect size F: 0.15 power (1- $\beta$ ): 0.86 was found.

Results

Frequency distributions of socio-demographic characteristics are shown in Table 1. In our study group, 65.1% of participants were female. The mean age was 32±6,5 and 57,9 % were between 26 to 35 years of age. Those who have a bachelor's degree accounted for 69,7 of all participants, 76,6 % of them were married. While the experience of the participants in the EMS field is mean 7.8±4,7 years, it is 10,4±5,9 years for all health services (Table 1).

Comparison of scale scores of socio-demographic characteristics is given in Table 2. Table 2 shows that there was a significant difference between Professional Status and anger-in score (p <0.05). In post-hoc analyzes of the data, anger-in scores of Doctors, were statistically significant compared to other occupational groups. When we look at the working years in the unit, there was a significant difference between years and anger control score (p <0.05). In post-hoc analysis of the data, it was concluded that the anger control scores were significantly lower for people working in the unit for 20 years or more.

When the scores and answers given to the question of ‘How do you find yourself to approach the patient who cannot control his anger?’ were compared, there was a significant difference between the anger, anger-in, and anger control scores (p <0.05). In advanced analyzes, it was found that those who felt incapable to approach the angry patient had higher scores in continuous anger and anger-in scores but lower anger control scores.

Socio-demographic characteristics of the respondents to the question ‘How do you find yourself to approach the patient who cannot control his anger?’ are shown in Table 3.

Discussion

EMS professionals often serve individuals who experience anger. In this study, the rate of encountering with angry patients of employees was found to be 96.6%. Given that aggressive behavior is a trigger of violence, it is important for employees to have the knowledge and skills to approach angry patient and to be able to recognize their anger status and professionally keep it under control. Employees can ignore their anger by considering patients and their relatives as angry [15].

In the study, when the total anger scores of the participants were evaluated, total score of Continuous Anger was found as 19.8 ± 5.5; Anger-In scores were found as 17.3 ± 4.3; Anger-Out scores were found as 16.8 ± 5.6; Anger Control scores were found as 22.8 ± 5.8.

In a study conducted by Kaya et al. [16] on nurses, while the mean score was 20.41 ± 4.36 for continuous anger, it was 16.22 ± 3.46 for anger-in, 15.25 ± 3.04 for anger-out 22.89 ± 4.23 for controlled anger.

In our study, a comparison of the anger level and anger expression style scores of the EMS employees with the other health workers showed similarities.

The majority of the participants in our study were female workers (65%, n= 367). In terms of gender, there was no significant difference between anger level and anger expression styles. In the literature, it was found that the continuous anger scores of the males were statistically significantly higher in some

Table 1. Frequency distributions of socio-demographic characteristics

	n	f
Gender		
Female	367	65.1%
Male	197	34.9%
Age		
18 – 25 years	117	20.7%
26 – 35 years	326	57.9%
36 years & above	121	21.4%
Educational status		
High-school graduate	117	30.3%
Bachelor's degree	393	69.7%
Marital Status		
Married	432	76.6%
Single	100	17.8%
Others	32	5.6%
Profession		
Physician	20	3.5 %
Nurse	103	18.3%
EMT	319	56,6%
Paramedic	122	21.6%
Experience in health sector		
0 – 9 years	304	53.9%
10 – 19 years	209	37.1%
20 + years	51	9%
Experience in EMS field		
0 – 9 years	378	67%
10 – 19 years	165	29.3%
20 + years	21	3.7%

sources [17] and that the female anger-out scores were higher than the males [18] and there was no difference between the anger scores in terms of gender for the other studies[ 14,15,19] Studies investigating the relationship between gender and anger do not provide clear information in this context. According to the findings, it is recommended to do more in-depth studies in this subject.

No significant relationship was found between age, education level, marital status, occupational age variables and AAES sub-dimensions.

In Kaya et al. [16], study it was found that the controlled anger scores were decreased when the age increased. Kayalı et al. [20] in their study, found that married and unmarried people were showing more anger control than divorced people. The results showed that the anger-out and continuous anger scores of university graduates were higher than those of high school graduates [17]. Similarly, no differences were found between these variables and the anger scores in some studies [14].

When compared the professional status, there was a statistically significant difference between these categories and AAES scores of anger-in scores. The post-hoc tests showed that the anger-in scores of the Doctors were significantly higher than other employees. In both domestic and foreign literature, there was not enough information about the continuous anger and anger expression styles of Doctors. However, in a study, it was

**Table 2.** Comparison of scale scores of socio-demographic characteristics

		Anger	Anger-Out	Anger-In	Anger Control
Gender					
Female	Median Min-max	19- (10-39)	15-(8-29)	16-(8-31)	23-(8-32)
Male	Median Min-max	19-(10-35)	15-(8-31)	16-(8-27)	23-(8-32)
	p	0.244	0.798	0.268	0.199
Educational Level					
High School	Median Min-max	19-(10-38)	15-(8-28)	15-(8-27)	23-(8-32)
Bachelor's Degree	Median Min-max	19-(10-39)	15-(8-31)	16-(8-31)	23-(8-32)
	p	0.544	0.864	0.069	0.398
Age Interval					
18-25 years	Median Min-max	19-(11-39)	15- (9-27)	15-(9-29)	22-(11-32)
26-35 years	Median Min-max	19- (10-38)	15-(8-31)	16-(8-29)	23-(8-32)
36 years & above	Median Min-max	18- (10-36)	15-(8-28)	16-(8-31)	22-(8-32)
	p	0.133	0.957	0.772	0.351
Profession					
Doctor	Median Min-max	20.5-(12-36)	16- (10-22)	19-(14-29)	23-(17-31)
Nurse/ Midwife	Median Min-max	18- (10-34)	15-(8-24)	15-(8-31)	22-(8-32)
EMT	Median Min-max	19- (10-38)	15- (8-31)	16-(8-29)	23-(9-32)
Paramedic	Median Min-max	19-(11-39)	15-(8-28)	16-(8-29)	22-(8-31)
	p	0.279	0.356	0.001	0.613
Marital Status					
Married	Median Min-max	19- (10-39)	15- (8-31)	16-(8-31)	23-(8-32)
Single	Median Min-max	19.5-(10-38)	14-(8-27)	16-(8-29)	23-(8-32)
Other	Median Min-max	19- (14-36)	15.5- (9-29)	17-(9-25)	23-(11-30)
	p	0.588	0.173	0.431	0.397
Experience in health sector					
(0-9 years)	Median Min-max	19- (10-39)	15- (8-28)	16-(8-29)	23-(8-32)
(10-19 years)	Median Min-max	19- (10-36)	15-(8-31)	16-(8-31)	23-(11-32)
(20 years & above)	Median Min-max	18-(10-36)	15-(8-28)	17-(8-31)	22-(8-32)
	p	0.474	0.195	0.219	0.606
Experience in EMS field					
(0-9 years )	Median Min-max	19- (10-39)	15- (8-28)	16-(8-31)	23-(8-32)
(10-19 years)	Median Min-max	19- (10-38)	15-(9-31)	16-(9-27)	23-(11-32)
(20 years & above)	Median Min-max	19-(10-36)	16-(10-26)	17-(10-27)	19-(12-32)
	p	0.944	0.13	0.822	0.02
Capability in approaching to the angry patient					
Capable	Median Min-max	19- (10-39)	15-(8-31)	16-(8-31)	23-(8-32)
Incapable	Median Min-max	21-(10-35)	16-(9-29)	17-(11-24)	20-(11-30)
Partially Capable	Median Min-max	19-(10-36)	15-(9-28)	16-(9-29)	23-(11-32)
	p	0.009	0.69	0.007	0.005
Total	Median Min-max	19- (10-39)	15- (8-31)	16-(8-31)	23-(8-32)

found that emergency physicians occasionally showed verbal violent behavior, and this behavior was shown as a result of inappropriate behaviors and aggressive behaviors of the patients and their relatives [21]. Violence against physicians was frequently heard in recent years. Therefore, new studies on the continuous anger and anger expression styles of physicians may contribute to the literature.

When the answers given to the open-ended questions created by the researchers were examined, it was found that those who felt inadequate to approach the angry patient had higher scores in anger and anger, and anger control scores were lower. When the literature was examined, no information was found in this direction. In this case, it can be said that employees who

**Table 3.** Socio-demographic characteristics of the respondents to the question ‘How do you find yourself to approach the patient who cannot control his anger?’

	Capable	Incapable	Partly Capable	Total
Frequency	293	48	223	564
Percentage	52%	8.5%	39.5%	100%
Gender				
Female	168-45.8%	34-9.3%	165-45%	367-65%
Male	125-63.5%	14-7.1%	58-29.4%	197-35%
Education Level				
High-school	97-56.7%	18-10.5%	56-32.7%	171-30%
Bachelor's Degree	196-49.9%	30-7.6%	167-42.5%	393-70%
Age				
18-25 years old	64-54.7%	9-7.7%	44-37.6%	117-21%
26-35 years old	162-49.7%	27-8.3%	137-42%	326-58%
36 years old and above	67-55.4%	12-9.9%	42-34.7%	121-21%
Profession				
Doctor	9-45%	2-10%	9-45%	20-3.5%
Nurse	61-59.2%	11-10.7%	31-30.1%	103-18.2%
EMT	157-49.2%	24-7.5%	138-43.3%	319-56.5%
Paramedic	66-54.1%	11-9%	45-36.9%	122-21.8%
Experience in health sector				
0-9 years	165-54.3%	25-8.2%	114-37.5%	304-54%
10-19 years	103-49.3%	18-8.6%	88-42.1%	209-37%
20 years and above	25-49%	5-9.8%	21-41.2%	51-9%
Experience in EMS field				
0-9 years	197-52.1%	33-8.7%	148-39.2%	378-67%
10-19 years	86-52.1%	13-7.9%	66-40%	165-29%
20 years or above	10-47.6%	2-9.5%	9-42.2%	21-4%

cannot express their anger in appropriate ways have inability and difficulty to approach an angry patient.

EMS professionals are serving in a very stressful environment. Employees may not be aware of their own feelings of anger and anger control levels when they were under stress working environment for a long period. Mutual anger can often result in violence. According to the findings of this study, employees having high levels of anger and less anger control levels are experiencing inability to interfere with angry individuals. Therefore, employees need training programs on anger management, expression of anger in an appropriate way, and skills development related to the angry patient approach.

**Scientific Responsibility Statement**  
*The authors declare that they are responsible for the article’s scientific content including study design, data collection, analysis and interpretation, writing, some of the main line, or all of the preparation and scientific review of the contents and approval of the final version of the article.*

**Animal and human rights statement**  
*All procedures performed in this study were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. No animal or human studies were carried out by the authors for this article.*

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## References

1. Bernaldo-De-Quirós M, Piccini AT, Gómez MM, Cerdeira JC. Psychological consequences of aggression in pre-hospital emergency care: Cross sectional survey. *Int J Nurs Stud*. 2015;52(1):260-70. DOI:10.1016/j.ijnurstu.2014.05.011
2. LeBlanc VR, Regehr C, Tavares W, Scott AK, Macdonald R, King K. The Impact of Stress on Paramedic Performance During Simulated Critical Events. *Prehosp Disaster Med*. 2012;27(4):369-74. DOI:10.1017/S1049023X12001021
3. Reuter-Oppermann M, van den Berg PL, Vile JL. Logistics for Emergency Medical Service systems. *Health Systems*. 2017;6(3):187-208. DOI:10.1057/s41306-017-0023-x
4. Wloszczak-Szubda A, Jarosz MJ, Goniewicz M. Professional communication competences of paramedics – practical and educational perspectives. *Ann Agric Environ Med*. 2013;20(2):366-72.
5. Bounds R. Factors affecting perceived stress in pre-hospital emergency medical services. *Calif J Health Promot*. 2006;4(2):113-31.
6. Garnham P. Understanding and dealing with anger, aggression and violence. *Nursing Standard*. 2001;16(6):37-42. DOI:10.7748/ns2001.10.16.6.37.c3102
7. Rybojad B, Aftyka A, Baran M, Rzońca P. Risk Factors for Posttraumatic Stress Disorder in Polish Paramedics: A Pilot Study. *Int J Emerg Med*. 2016;50(2):270-6. DOI:10.1016/j.jemermed.2015.06.030
8. Carmassi C, Gesi C, Corsi M, Cremone IM, Bertelloni CA, Massimetti E, et al. Exploring PTSD in emergency operators of a major University Hospital in Italy: a preliminary report on the role of gender, age, and education. *Ann Gen Psychiatry*. 2018;17(1):17. DOI:10.1186/s12991-018-0184-4
9. Lubke GH, Ouwens KG, de Moor MHM, Trull, TJ, Boomsma DI. Population heterogeneity of trait anger and differential associations of trait anger facets with borderline personality features, neuroticism, depression, Attention Deficit Hyperactivity Disorder (ADHD), and alcohol problems. *Psychiatry Res*. 2015;230(2):553-60. DOI:10.1016/j.psychres.2015.10.003
10. Spielberger CD, Jacobs G, Russell S, Crane, R. S. Assessment of anger: The state-trait anger scale. In J. N. Butcher & C. D. Spielberger, editors, *Advances in personality assessment*. Hillsdale, NJ: Lawrence Erlbaum; 1983. p. 159-87.
11. Bigham BL, Jensen JL, Tavares W, Drennan IR, Saleem H, Dainty KN, et al. Paramedic Self-reported Exposure to Violence in the Emergency Medical Services (EMS) Workplace: A Mixed-methods Cross-sectional Survey. *Prehosp Emerg Care*. 2014;18(4):489-94. DOI:10.3109/10903127.2014.912703
12. Özdemir A, Karasu F, Hakan A. Gaziantep 112 acil sağlık hizmetleri çalışanlarının maruz kaldıkları şiddetin değerlendirilmesi (Assessment of violence experienced by Gaziantep 112 emergency health care workers). *Hastane Öncesi Dergisi/ Prehospital Journal*. 2018;3(1):31-42.
13. Ozer A. Surekli Ofke ve Ofke İfade Tarzi Olcekleri On Calismasi (Continuous anger and anger expression style scales: preliminary study). *Turkish Journal of Psychology*. 1994;9(31):26-35.
14. Duran S, Karadaş A, Kadder E. Hemşirelik öğrencilerinin tolerans düzeyleri ile öfke kontrolleri arasındaki ilişkinin incelenmesi (Investigation of the relationship between tolerance levels and anger controls of nursing students). *SDU Journal of Health Sciences*. 2016;7(3):39-44.
15. Arik C, Anat R, Arie E. Encountering anger in the emergency department: identification, evaluations and responses of staff members to anger displays. *Emerg Med Int*. 2012;2012. DOI:10.1155/2012/603215.
16. Kaya N, Solmaz Ş. Bir üniversite hastanesinin kulak burun boğaz kliniğinde çalışan hemşirelerin öfke ve öfke ifadesi (Anger and anger expression of nurses working in a university hospital ear nose and throat clinic). *Türkiye Klinikleri J Nurs Sci*. 2009;1(2):56-64.
17. Keskin G, Gümüş AB, Engin E. Bir Grup Sağlık Çalışanında Öfke ve Mizaç Özellikleri: İlişkisel Bir İnceleme (Anger and Temperament Characteristics in a Group of Health Workers: A Relational Review). *Dusunen Adam*. 2011;24(3). DOI:10.5350/DAJPN2011240305
18. Ham E-M, You M-J. Role of Irrational Beliefs and Anger Rumination on Nurses' Anger Expression Styles. *Workplace Health Saf*. 2018;66(5):223-32. DOI:10.1177/2165079917737090
19. Bostancı N, Çoban Ş, Tekin Z, Özen A. Üniversite öğrencilerinin cinsiyete göre öfke ifade etme biçimleri (Ways of anger expressions of university students by gender). *Kriz Dergisi/ Crisis Journal*. 2006;14(3):9-18.
20. Kayalı S, Durmuş MK, Aren A. Acil Tıp Kliniğinde Çalışan Sağlık Personelinin Sosyo-Demografik Özelliklerinin Öfke Tarzları ve Saldırganlık Düzeyleri Üzerine Etkisi (The Effect of Socio-Demographic Characteristics of Health Personnel Working in Emergency Medicine Clinic on Anger Styles and Aggression Levels) . *Istanbul Medical Journal*. 2018;19(1):18-21. DOI:10.5152/imj.2018.25902
21. Darian AA, Masoumi K, Forouzan A. A Survey of Violence against Patients and Staff Working in the Emergency Department in Ahvaz, Iran. *Trends Med Res*. 2015;10(1):19-25. DOI:10.3923/tmr.2015.19.25

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